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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,248	11/17/2003	David M. Tucker	VCSre	5207

7590 04/13/2005

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EXAMINER	
GARBER, CHARLES D	

ART UNIT	PAPER NUMBER
2856	

DATE MAILED: 04/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/716,248	TUCKER ET AL.	
	Examiner	Art Unit	
	Charles D. Garber	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *03/11/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 03/11/2005 have been fully considered but they are not persuasive.

Applicant argues on page 2 that the claims of this case that later became Patent 6,539,778 were allowed because Graves failed to disclose or suggest water pumped to hydrostatic pressure.

This is not apparent from Examiner's written record or from Examiner's recollection.

What Examiner recalls from an interview of 10/18/2002 but not made clear in the written summary was that the unique and patentable features of the instant invention were that both the pig launch and receiving ends were subsea. Examiner relied upon Graves only for using a submersible vehicle to operate a subsea pump at the launch end of a pipeline. Examiner did not rely upon Graves for the function of hydrostatic testing of a pipeline. Examiner relied upon the Bliss reference for that as well as for the pig receiving end being subsea. What Examiner believes he failed to demonstrate in the earlier rejections based upon Bliss and Graves was both ends of the pipeline being subsea. Indeed, in Examiners original reasons for allowance in the Office Action of 6/5/2002 Examiner stated the "prior art method of dewatering have involved at least one end of the pipeline at surface level or a surface level source of compressed gas." (in referring to "dewatering" Examiner was including pipeline "cleaning" as in the claimed invention)

During the aforementioned interview Applicant was resolute in showing how the claimed invention took advantage of the fact that both ends of the pipeline and the pump were submerged to reduce the power of pumping required to move the pig and raise the pressure for testing. The hand drawn figures accompanying the interview summary show various known methods of pigging and testing pipelines, none of which the Applicant asserted had both ends being subsea with pumping also carried out subsea. No single reference that Examiner relied upon in during the original prosecution taught both ends being subsea.

In retrospect Examiner considers this may not have been necessary as long as the combination did so by at least one reference suggesting a subsea pig launcher (as in Graves) and another reference teaching a subsea pig receiver (as in Bliss). But Examiner believed a single reference teaching both manifold ends being submerged was important to make a strong showing of obviousness. Examiner has attempted to do so with the Matthews reference.

However, Examiner agrees with Applicant's argument with respect to the motivation Examiner used to suggest the Matthews teaching of both ends of the pipeline being subsea during pigging. Examiner considered that a subsea manifold at both ends would be suggested by Matthews placement of a pump at the subsea receiving end to help urge the pig along its course. This would only suggest the usage of an extra pump at the receiving end not necessarily the location of one or the other manifold on the sea floor.

Nevertheless, Examiner considers that the Matthews reference still applies and that the grounds of rejection are the same - only the explanation changes. Matthews, Jr. discloses a method of pigging a pipeline during a pipeline recovery. The method teaches pigging the pipeline from a subsea launching end at item 18 to a subsea receiving end at item 34. Both ends are subsea as an alternative to when "the pipeline has not yet been connected in place to a raiser at [an] offshore structure 30" (column 5 lines 26-43) similar to that shown in Bliss figure 7.

It would have been obvious to one having ordinary skill in the art at the time the invention was made for both ends of the Bliss pipeline to be on the sea floor when it is necessary to move a pig through the pipeline as an alternative when the "the pipeline has not yet been connected in place to a riser at offshore structure" such as the riser shown in figure 7 of Bliss.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 4, 5, 6 and 9, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bliss et al. (US Patent 5,883,303) in view of Graves (US Patent 5,927,901) and Matthews, Jr. (US Patent 3,777,499).

Regarding claims 1, 4, 6 and 9, Bliss discloses a conventional method of testing a subsea pipeline between a pig launcher and receiver (equivalent to manifolds) including operating a pump to force liquid such as water behind the pig and move the pig from the pig launcher to the submerged pig receiver; and pumping water into said pipeline to a pressure for testing and monitoring the pressure to assure that there are no leaks in the pipeline (column 1 lines 36-53). Motion of the pig through the pipeline will inherently have the effect of cleaning the pipeline of any material larger than the clearance between the pig and the pipeline wall.

Bliss however does not teach the launcher is submerged and that a SV (or submerged or submersible vehicle) is used to operate the pump.

Graves teaches the use of an apparatus to drive a pig through a pipeline which has already been laid (column 3 lines 22-31) and a pump powered by a remotely operated vehicle 29 (column 4 lines 1-9), as an alternative to surface water source, to provide water flow to control the movement of the pig through the pipeline (column 1 lines 50-51, column 2 lines 35-41, 47-52).

It would have been obvious to one having ordinary skill in the art to use a submerged launcher in order to test a section of pipe that is already laid to employ a SV

(or submerged or submersible vehicle) to operate a pump as an advantageous alternative to a surface source of water pressure.

Bliss also does not expressly teach the water may be seawater, however, Bliss refers to the water in the sea simply as water (not seawater) so the water of Bliss may be considered to be seawater.

Finally, the references do not teach the operation carried out while the pipeline is subsea, in other words, both ends being on the seafloor during the operation.

Matthews, Jr. discloses a method of pigging a pipeline during a pipeline recovery. The method teaches pigging the pipeline from a subsea launching end at item 18 to a subsea receiving end at item 34. Both ends are subsea as an alternative to when "the pipeline has not yet been connected in place to a raiser at [an] offshore structure 30" (column 5 lines 26-43) similar to that shown in Bliss figure 7.

It would have been obvious to one having ordinary skill in the art at the time the invention was made for both ends of the Bliss pipeline to be on the sea floor when it is necessary to move a pig through the pipeline as an alternative when the "the pipeline has not yet been connected in place to a riser at offshore structure" such as the riser shown in figure 7 of Bliss.

As for claim 5, Graves further teaches ROV 29 shown with a robotic arm for connecting conduit 12 (connected to pump 22) to said pipeline (see figure 1 and column 3 lines 25-30). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an ROV (equivalent to SV) with a robot arm as an

alternative to a diver 28. The diver may therefore avoid the hazardous environment of the seafloor for this task.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bliss et al. (US Patent 5,883,303) as modified by Graves (US Patent 5,927,901) and Matthews, Jr. (US Patent 3,777,499) and applied to claim 1 above and further in view of Adkins et al. (US Patent 4,332,277)

The references do not expressly teach the test pressure is read on a gauge mounted on a panel on said pig launcher/receiver.

Adkins teaches gauges 46 and 48 on a pig launcher which are read to determine the pressure on either side of pig 11 during high pressure test of the pipeline (figure 2, abstract, column 1 lines 32-41, column 3 lines 37-39).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a pressure gauge on the pig launcher in order to read the high pressures and determine if the pipeline is able to withstand the intended high pressures.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bliss et al. (US Patent 5,883,303) as modified by Graves (US Patent 5,927,901) and Matthews, Jr. (US Patent 3,777,499) and applied to claim 1 above and further in view of Corbetta (US Patent 6,234,717).

The references lack the fill and test package carried by the SV. Corbetta teaches a Remotely Operated Vehicle (ROV) carrying a seal ring test system for pressure testing newly assembled sections of conduit (column 13 line 66 to column 14 line 11). It

would have been obvious to one having ordinary skill in the art at the time the invention was made to carry a seal ring test system on an ROV so the pipe joint seals may be tested for integrity advantageously while the pipeline is still being assembled and more easily repaired.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bliss et al. (US Patent 5,883,303) in view of Graves (US Patent 5,927,901)

Bliss discloses a conventional method of testing a subsea pipeline between a pig launcher and receiver (equivalent to manifolds) including operating a pump to force liquid such as water behind the pig and move the pig from the pig launcher to the submerged pig receiver; and pumping water into said pipeline to a pressure for testing and monitoring the pressure to assure that there are no leaks in the pipeline (column 1 lines 36-53).

Bliss however does not teach the launcher is submerged and that a SV (or submerged or submersible vehicle) is used to operate the pump.

Graves teaches the use of an apparatus to drive a pig through a pipeline which has already been laid (column 3 lines 22-31) and a pump powered by a remotely operated vehicle 29 (column 4 lines 1-9), as an alternative to surface water source, to provide water flow to control the movement of the pig through the pipeline (column 1 lines 50-51, column 2 lines 35-41, 47-52).

It would have been obvious to one having ordinary skill in the art to use a submerged launcher in order to test a section of pipe that is already laid to employ a SV

(or submerged or submersible vehicle) to operate a pump as an advantageous alternative to a surface source of water pressure.

Bliss also does not expressly teach the water may be seawater, however, Bliss refers to the water in the sea simply as water (not seawater) so the water of Bliss may be considered to be seawater.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles D. Garber whose telephone number is (571) 272-2194. The examiner can normally be reached on 6:30 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdg

CHARLES GARBER
PRIMARY EXAMINER